

CLAIMS:

1. A method of operating a photosensitive apparatus having at least one photodiode, comprising the steps of:

- injecting a first bias charge onto the photodiode;
- sampling the first bias charge on the photodiode, yielding a sampled signal;
- injecting a second bias charge onto the photodiode;
- integrating a light signal on the photodiode;
- transferring the light signal and the second bias charge from the photodiode; and
- subtracting the sampled signal from the light signal and the second bias charge.

2. The method of **claim 1**, the sampling step including storing the sampled signal on a capacitor.

3. The method of **claim 2**, the subtracting step including reading out the light signal and the second bias charge through the capacitor having the sampled signal thereon.

4. The method of **claim 2**, the storing step including the step of placing a predetermined reference voltage on a second side of the capacitor when the sampled signal is transferred to a first side of the capacitor.

5. A method of operating a photosensitive apparatus having at least one photodiode and a capacitor associated with the photodiode, comprising the steps of:

injecting a first bias charge onto the photodiode;
transferring the first bias charge from the photodiode to the capacitor;
injecting a second bias charge onto the photodiode; and
transferring the second bias charge in combination with a light signal from the photodiode to the capacitor.

6. The method of **claim 5**, further comprising the step of
placing a predetermined reference voltage on a second side of the capacitor when the first bias charge is transferred to the capacitor on a first side of the capacitor.

7. The method of **claim 6**, wherein, when the second bias charge is transferred to the capacitor on a first side of the capacitor, a second side of the capacitor is caused to float.

8. The method of **claim 1**, further comprising the step of
reading out a resulting charge on the capacitor as an image signal.

9. The method of **claim 1**, the apparatus further comprising an amplifier disposed between the photodiode and the capacitor.

10. The method of **claim 1**, the apparatus further comprising a holding capacitor disposed in parallel between the photodiode and the capacitor.

11. A photosensitive imaging apparatus, comprising a plurality of cells, each cell corresponding to a small area of an image to be recorded, each cell including

at least one photodiode,
a sampling capacitor associated with the photodiode,
means for injecting a bias charge onto the photodiode, and
means for transferring a charge from the photodiode onto the sampling capacitor.

12. The apparatus of **claim 11**, wherein, in each cell, the sampling capacitor is in series with the photodiode.

13. The apparatus of **claim 12**, further comprising means for placing a predetermined reference voltage on a second side of the sampling capacitor in a cell when charge is transferred to the sampling capacitor on a first side of the sampling capacitor.

14. The apparatus of **claim 12**, each cell further including an amplifier disposed between the photodiode and the sampling capacitor.

15. The apparatus of **claim 12**, each cell including a second capacitor in parallel with the at least one photodiode.

16. The apparatus of **claim 15**, the second capacitor being disposed between the amplifier and the sampling capacitor.